"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F. [deceased]; GORODNOV, V.D.; ADEL', I.B.

Effect of electrolytes and carboxymethycellulose on the strength of structure in drilling mud-liquid systems. Koll. zhur. 27 no.1: 46-50 Ja-F '65. (MIRA 18:3)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni Gubkina.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

LOPATIN, V.A.; MUKHIN, L.K.; ZHIGACH, K.F.

Stability of clay rocks in the drilling of deep wells with high bottom temperatures. Ivz. vys. ucheb. zav.; neft' i gaz 7 no.7: 23-28 '64. (MIRA 17:9)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akademika I.M. Gubkina.

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DKHARIYAL, Ch.D.; ZHIGACH, K.F.; MALININA, A.I.; TIMOKHIN, I.M.; FINKEL'SHTEYN, M.Z.

Factors influencing the effectiveness of cellulose carboxymethylation. Zhur.prikl.khim. 37 no. 5:1099-1105 My '64. (MIRA 17:7)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni I.M.Gubkina.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

GORODNOV, V.D.; ADEL', I.B.; ZHIGACH, K.F.

Relationship between chemical reagents and the swelling of clay rocks. Izv. vys. uchebn. zav.; neft' i gaz 5 no.1:35-40 '62. (MIRA 16:11)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M. Gubkina.

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ZHIGACH, K.F.

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LISICHKIN, S.M., ZHIGACH, K.F., BORISOV, P.A., GALPERSON, E.B., KORYAGIN, I.D.,

Present day status and main development trends of the oil industry in the USSR

Report to be submitted for the Sixth World Petroleum Congress, Frankfurt, 16-26 June 63

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

LEONIDOV, V.I.; ZHIGACH, K.F.; MUKHIN, L.K.

Effect of pressure and temperature on the interaction of flushing fluids and clay rocks. Izv.vys.ucheb. zav.;neft' i gaz 5 no.5: 35-38 '62. (MIRA 16:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M.Gubkina.
(Clay) (Oil well drilling fluids)

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

DKHARIYAL, Ch.D.; ZHIGACH, K.F.; MALININA, A.I.; TIMOKHIN, I.M.; FINKEL'SHTEYN, M.Z.

Effect of production techniques of carboxymethylcellulose on its etherification and solubility in water. Izv.vys.ucheb. zav.; neft' i gaz 5 no.2:29-34 '62. (MIRA 15:7)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M. Gubkina.
(Cellulose)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

LEONIDOV, V.I.; MUKHIN, L.K.; ZHIGACH, K.F.

Improving the method of studying the effect of drilling fluids on the strength of clay rocks. Izv. vys. ucheb. zav.; neft' i gaz 4 no.2:25-30 '61. (MIRA 15:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M.Gubkina.
(Oil well drilling fluids) (Clay)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F.; ADEL', I.B.; GORODNOV, V.D.

Effect of temperature on the swelling of clay rocks. Izv. vys. ucheb. zav.; neft' i gaz 4 no.5:23-29 '61. (MIRA 15:2)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akademika I.M.Gubkina.

(Oil well drilling) (Clay)

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B106/B186

15.7400

AUTHORS: Zhigach, K. F., Luft, B. D., Finkel'shteyn, M. Z., Goloshchapova, I. S., Timokhin, I. M., Chuvilina, L. B.

TITLE: Investigation of aqueous alundum suspensions stabilized by carboxy-methyl cellulose for electrophoretic coating

PERIODICAL: Kolloidnyy zhurnal, v. 24, no. 5, 1962, 558 - 564

TEXT: The effect of several physicochemical characteristics of sodium carboxy-methyl cellulose (Na-CMC) on its efficiency as a stabilizer for aqueous suspensions of alundum for electrophoretic coating was studied. The sedimentation stability of the suspension is raised with increasing degrees of polymerization, etherification, and Na-CMC concentration in the suspension. Greater thickness of coatings is obtained with an increasing degree of polymerization of Na-CMC, while increasing etherification resulted in thinner coatings. The homogeneity of coatings improves with a lower degree of polymerization, and a higher degree of etherification and Na-CMC concentration. The anodic gas evolution, which is very detrimental to the quality of coatings, increases with etherification and Na-CMC concentration

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Investigation of aqueous alundum...

in the suspension, and is reduced by an increasing degree of polymerization. The resistance of coatings to 0.05 N NaOH increases with concentration, degree of polymerization, and etherification of Na-CMC. Electron-microscopic measurements showed that the stabilizing effect of Na-CMC is based on the adsorption of high-molecular ions $(CMC)^{-\gamma}$ to the alundum particles, and on the formation of structurized protecting gels which prevent the joining of the individual particles. The best coatings are obtained by stabilizing the alundum suspensions with purified Na-CMC having a degree of polymerization of 500-550 and a degree of etherification of 70-80 in a concentration of 0.3-0.5% of the aqueous phase. The results were used in developing a new industrial technique of producing electrophoretic insulating coatings from aqueous alundum suspensions on parts of electron tubes. Thus, the use of toxic and inflammable organic solvents and of nitrocellulose can be abandoned. There are 8 figures and 1 table. The English-language reference is: L. E. Grey, Electronic. Eng. 26, 402, 1954.

ASSOCIATION: Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. I. M. Gubkina (Moscow Institute of Petrochemical and Gas Industry imeni I. M. Gubkin)

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

Investigation of aqueous alundum... S/069/62/024/005/004/010
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SUBMITTED: April 22, 1961

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

AKMULLIN, M.Sh.; ZHIGACH, K.F.

Effect of carboxymethylcellulose on the working capacity of bits and the energy consumption in a rock-breaking process. Izv. vys. ucheb. zav.; neft' i gaz 4 no.8:31-36 '61.
(MIRA 14:12)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M.Gubkina.
(Oil well drilling)

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

AKMULLIN, M.Sh.; ZHIGACH, K.F.

Effect of nonaqueous drilling fluids on the wear of bits. Izv. vys. ucheb. zav.; neft' i gaz 4 no.6:33-38 '61. (MIRA 15:1)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M.Gubkina.
(Oil well drilling fluids) (Mechanical wear)

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

AKMULLIN, M.Sh.; ZHIGACH, K.F.; SHREYNER, L.A.

Effect of flush fluids on the wear resistance of bits. Izv. vys. ucheb. zav.; neft' i gaz 3 no.9:29-32 '60. (MIRA 14:4)

1. Moskovskiy institut neftekhimicheskiy i gazovoy promyshlennosti imeni akademika I.M.Gubkina.
(Oil well drilling fluids) (Boring machinery)

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F.; YEZHOV, P.A.; FINKEL'SHTEYN, M.Z.

Effect of additives of water soluble cellulose ethers on the permeability and mechanical properties of cement stone. Izv. vys. ucheb. zav.; neft' i gaz 3 no.10:27-30 '60. (MIRA 14:4)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M.Gubkina.
(Cellulose ethers) (Cement)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F., prof., otv.red.; MURAV'YEV, I.M., prof.; red.; TIKHOMIROV, A.A., kand.ekonom.nauk; red.; VINOGRADOV, V.N., kand.tekhn.nauk, red.; SIDORENKO, N.V., red.; BRENTS, A.D., red.; CHARYGIN, M.M., prof., red.; DUNAYEV, F.F., prof., red.; CHARNYY, I.A., prof., red.; CHERNOZHUKOV, N.I., prof., red.; KUZMAK, Ye.M., prof., red.; DAKHNOV, V.N., prof., red.; PANCHENKOV, G.M., prof., red.; NAMETKIN, N.S., prof., red.; TAGIYEV, E.I., prof., red.; BIRYUKOV, V.I., kand. tekhn.nauk, red.; YEGOROV, V.I., kand.tekhn.nauk, red.; ALMAZOV, N.A., dotsent, red.; GUREVICH, V.M., red.; ISAYEVA, V.V., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Development of the gas industry of the U.S.S.R.; from the proceedings of the Interuniversity Scientific Conference on the Problems of the Gas Industry] Mezhvuzovskaia nauchnaia konferentsiia po voprosam gazovoi promyshlennosti. Razvitie gazovoi promyshlennosti SSSR; materialy. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 405 p. (MIRA 13:11)

1. Mezhvuzovskaya nauchnaya konferentsiya po voprosam gazovoy promyshlennosti. 2. Glavgaz SSSR (for Brents). 3. Moskovskiy institut neftekhimicheskoi i gazovoi promyshlennosti im. akad.Gubkina (for Charygin, Charnyy).

(Gas industry)

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F., doktor khimicheskikh nauk; FINKEL'SHTEYN, M.Z., kand. khimicheskikh nauk; MOGILEVSKIY, Ye.M., kand.tekhn.nauk; TIMOKHIN, I.M.

Water-soluble and alkali-soluble cellulose esters. Khim.nauka i prom. 4 no.6:718-725 '59. (MIRA 13:8)
(Cellulose esters)

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

FINKEL'SHTEYN, M.Z., kand.tekhn.nauk; ZHIGACH, K.F., prof., doktor khimicheskikh nauk; MOGILEVSKIY, Ye.M., kand.tekhn.nauk; TIBILOVA, T.A., inzh., MALININA, A.I.

Carboxymethyl ethers of cellulose and their use in the national economy. Trudy MNI no.20:67-92 '57. (MIRA 13:5)
(Cellulose)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F., prof., doktor khimicheskikh nauk; KURYSHEV, D.D., kand. tekhn.nauk

Developing a method for softening sea water to be used in the production of weighted clay muds. Trudy MNI no.20:103-113 '57. (MIRA 13:5)

(Sea water) (Clay)

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ZHIGACH, K.F., prof., doktor khimicheskikh nauk; MUKHIN, L.K., kand. tekhn.nauk; DEMISHEV, V.N., assistent

Physicochemical principles for preparing anhydrous solutions. Trudy MNI no.20:154-164 '57. (MIRA 13:5)
(Oil well drilling fluids)

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ZHIGACH, K.F.; KAS'YANOV, N.M.

Method for determining the η plast. and τ_0 of drilling fluids in a rotary viscosimeter. Izv.vys.ucheb.zav.; neft' i gaz 2 no.12:99-107 '59. (MIRA 13:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M. Gubkina.
(Oil well drilling fluids)
(Viscosimeter)

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SOV/63-4-6-5/37

AUTHORS: Zhigach, K. F. (Doctor of Chemical Sciences), Finkelshteyn, M. Z. (Candidate of Chemical Sciences), Mogilevskiy, Ye. M., (Candidate of Technical Sciences) Timokhin, I. M.

TITLE: Water- and Alkali-Soluble Cellulose Ethers

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1959, Vol 4, Nr 6, pp 718-725 (USSR)

ABSTRACT: This is a review of the literature dealing with water- and alkali-soluble cellulose ethers used in the preparation of thickening and stabilizing agents, glues, etc. The solubility of carboxymethylcellulose is determined basically by the degree of its etherification γ and the degree of polymerization DP. The difficulty in obtaining highly substituted carboxymethylcellulose compounds was explained by the fact that in methylation in alkaline and neutral media, the secondary hydroxyl groups have the highest reactivity, and that both secondary hydroxyl groups can be

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Water- and Alkali-Soluble Cellulose Ethers

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SOV/63-4-6-5/37

replaced in methylcellulose compounds (Soobshch. VKhO, 1955, Nr 3, p 9). Carboxymethylcellulose compounds consist of fractions with different degrees of etherification and polymerization. Industrial carboxymethylcellulose nearly always contains an admixture of slightly soluble gel fraction. It was established (DAN SSSR, 1958, Vol 123, Nr 2, 289) that the individual fractions have different stabilizing properties when used as stabilizers of the oil well drilling fluids. The gel fraction has low stabilizing properties, and the stabilizing effect of carboxymethylcellulose compounds solution increases with the decreasing content of the gel fraction, notwithstanding the decreasing viscosity of the solution (Izv. vuzov MVO SSSR, Neft' i gaz, 1959, Nr 6). The viscosity depends on the fraction content, and also on the degree of etherification (DAN SSSR, 1959, Vol 126, Nr 5; RZhKh, 1957, p 10029). With increasing degree of etherification (γ = 20 to 200) the viscosity increased to a maximum, decreased

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Water- and Alkali-Soluble Cellulose Ethers

SOV/63-4-6-5/37

to a minimum, and then increased again. This was explained by two simultaneously acting factors; namely the increasing degree of the macromolecules' asymmetry, due to the introduction of substituents, and the simultaneous decreasing hydration and asymmetry of the macromolecules. Highly etherified carboxymethylcellulose (γ = 135 and 198) were not thixotropic (RZhKh, 1957, p 10029). The maximum thixotropy was shown by solutions with γ = 70; this was explained by the maximum symmetry of the macromolecules at this degree of etherification, which enables them to approach and form a thixotropic solution. The thixotropy decreased with the degree of polymerization. Application of carboxymethylcellulose in drilling fluids is discussed. A special type of carboxymethylcellulose was developed which showed a lower water separation rate from clay suspensions than natural stabilizers, such as starch, rosin, and sodium alginate (Novosti neftyanoy tekhniki, neftepromyslovoye delo, Gostoptekhizdat, 1952, Nr 9; 1953, Nr 6; 1955, Nr 12; 1956, Nr 9; 1957, Nr 7; 1958, Nr 8).

Card 3/5

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High-viscosity carboxymethylcellulose compound type GEC was synthesized lately for the improvement of the rheological properties of clayless or clay-poor drilling fluids; these compounds allow for an increase of the drilling speed and elimination of the complicated and labor-consuming clay handling (Neft. khoz., 1958, Nr 1). The applications of carboxymethylcellulose in the detergent industry (Maslob.-zhir. prom., 1958, Nr 7) and ore flotation (Tsvet. met., 1957, Nr 11) is contemplated in the USSR. Carboxymethylcellulose is also used as thickener for textile printing dyes, in the manufacture of glues, and in numerous other industries. Low-molecular-weight highly pure compounds can be used in the preparation of blood plasma substitutes (Trudy Mosk. instituta neftekhim. i gaz. prom., 1959, Nr 24; DAN SSSR, 1958, Vol 123, Nr 3, p 471). The increase in production of carboxymethylcellulose is hampered, however, by the insufficient production of chloroacetic acid. Various syntheses of cellulose sulfates are reviewed, among them the

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Water- and Alkali-Soluble Cellulose Ethers

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SOV/63-4-6-5/37

sulfation of cellulose with sulfuric acid and methanol mixture (Izv. vuzov MVO SSSR, Neft' i gaz, 1959, Nr 11). Carboxyethylcellulose was obtained in reaction of cellulose with acrylonitrile in thepresence of alkali (Avt. svid., 1949, p 77409) and in reaction of acrylonitrile with alkali cellulose (ZhPKh, 1956, Nr 1, p 105). The syntheses of methyl-, ethyl-, and hydroxyethylcellulose as well as mixed cellulose ethers are reviewed. There are 5 figures; and 147 references, 41 U.S., 13 U.K., 1 French, 1 Belgian, 2 Dutch, 3 Canadian, 2 Swiss, 8 Swedish, 1 Japanese, 1 Austrian, 18 German, 56 Soviet. Recent U.S. and U.K. references are: E. H. de Butts, J. A. Hudy, J. H. Elliott, Ind. Eng. Chem., 49, Nr 1, 94 (1957); Chem. Eng. News, 35, Nr 4, 78 (1957); Chem. Trade J., Nr 3620, 905 (1956); Chem. Eng. News, 34, Nr 36, 4253 (1956); J. Swintosky, A. Kaufman, J. Am. Pharm. Ass., 44, Nr 9, 540 (1955).

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ZHIGACH, K.F.

11(4) PHASE I BOOK EXPLOITATION SOV/2124

Mezhvuzovskoye soveshchaniye po voprosam novoy tekhniki v neftyanoy promyshlennosti. Moscow, 1956

Razvedka i razrabotka neftyanykh i gazovykh mestorozhdeniy: materialy soveshchaniya, tom. 1 (Prospecting and Development of Oil and Gas Deposits: Papers of the Inter-Vuz Conference on New Techniques in the Petroleum Industry, Vol 1) Moscow, Gostoptekhizdat, 1958. 311 p. Errata slip inserted. 1,500 copies printed.

Eds.: I. M. Murav'yev, Professor, Doctor of Technical Sciences, and V. N. Dakhnov, Professor, Doctor of Geological and Mineralogical Sciences; Editorial Board: K. F. Zhigach, Professor (Resp. Ed.), I. M. Murav'yev, Professor, A. A. Tikhomirov, Candidate of Economical Sciences, V. I. Yegorov, Candidate of Economical Sciences, N. M. Charygin, Professor, P. P. Dumayev, Professor, N. I. Chernozhukov, Professor, Ye. M. Kuzmak, Professor, I. A. Charnyy, Professor, G. M. Panchenkov, Professor, V. N. Dakhnov, Professor, Doctor of Geological and Mineralogical Sciences, N. S. Nametkin, Doctor of Chemical Sciences, N. A. Almazov, Docent, V. N. Vinogradov, Candidate of Technical Sciences, V. I. Biryukov, Candidate of Technical Sciences, E. I. Tagiyev, and V. M. Gurevich; Executive Ed.: N. P. Dobrynina; Tech. Ed.: E. A. Makhina.

PURPOSE: The book is intended for engineers and scientific personnel working in the petroleum industry and vtuzes. It may also serve as a textbook for advanced students of petroleum vtuzes.

COVERAGE: The book contains articles written by staff members of the Moscow, Groznyy, and Ufa Petroleum Institutes, the Kuybyshev and Azerbaydzhan Industrial Institutes, the UfNII (Ufa Scientific Research Institute), VNIIburneft' (All-Union Scientific Research Institute of Oil Drilling), KBNP (Design Office of Petroleum Instrument Making), the Bashneft Association (Bashkiriya Petroleum). These papers, read at the Mezhvuzy (Inter-Vuz) Scientific Conference, deal with new techniques in the petroleum industry introduced since 1956. Emphasis is given to the importance of efficient drilling, geophysical prospecting, working of oil and gas deposits, and the use of new devices employed in oil and gas exploitation. There are 52 references: 44 Soviet, and 8 English.

Zhigach, K. F., L. K. Mukhin, V. N. Demishev, and N. N. Goncharov [Moscow Petroleum Institute]. Petroleum-Base Drilling Fluids 92

The authors state that petroleum-base drilling fluids are being used to open productive horizons to maintain the penetration rate at the bottom-hole zone, and to increase the well output. The use of petroleum-base drilling fluids is particularly efficient for opening formations with high permeability and low pressure, where the absorption of a large amount of and by the productive formation may prove dangerous. Petroleum-base drilling fluids also prove useful in opening formations with low permeability, particularly where the formation contains swelling clay. Petroleum-base drilling fluids produce good results in drilling under complex geological conditions and in drilling deep and directional wells.

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

Zhigach, K. F., L. K. Mukhin, and V. N. Demishev [Moscow Petroleum Institute]. Specification of Petroleum-Base Drilling Fluids 101

The authors describe the formula of petroleum-base drilling fluids developed at the laboratories of the MNI imeni Gubkina (Moscow Petroleum Institute im. Gubkin) and VNIIburneft' (All-Union Scientific Research Institute for Petroleum Drilling), and also cites foreign formulae and methods for controlling parameters during the operation.

Zhigach, K. F., and K. F. Pauz. Drilling Mud for Opening up Productive Formations 112

The authors state that drilling mud had been used almost exclusively for many years. The development of new techniques called, however, for the use of drilling fluids that would speed up and allow drilling under difficult geological conditions, deeper penetration without reducing the penetrability at the bottom-hole. Drill practices in eastern regions and experimental surveys established that rocks are better crushed when drilling fluids or gases with low specific gravity and viscosity are used. In eastern fields, water is being substituted for clayey fluids and may soon be replaced in drilling by air and gas.

Zhigach, K. F., and S. Z. Zarinov. Use of Powdery Clay in Drilling 118

The authors report on recent tests made in the production of powdery clay and its application in drilling. They refer specifically to the production of powdery clay from Bashkiriya and Tatariya clay, manufactured at local plants.

Zaikov, V. N. [Moscow Petroleum Institute]. Geophysical Methods for Studying Reservoir Properties and Oil Saturation of Rocks 125

The author stresses the need for more thorough prospecting of carbonaceous profiles previously neglected. The industrial importance of carbonaceous profiles of Bashkirskaya SSR may be judged by the results of extensive prospecting and geophysical studies of the Devonian horizons undertaken in the last 10 years. They confirmed the presence of oil and gas-bearing horizons in other strata.

Letyshova, N. G., and V. N. Dobrynin. [Moscow Petroleum Institute]. Method of Potentials of Induced Polarization and Its Importance in the Study of Oil and Gas Wells 150

The authors stress the importance of studying the reservoir properties of productive horizons on the basis of geophysical data, without coring. Of particular interest is the method of induced polarization developed in the past few years by members of the MNI chair in industrial geophysics: it determines the specific surface and permeability of sandy reservoirs. The method of induced polarization, actually proposed long ago, remained purely academic because the phenomena of induced polarization had originally been misinterpreted. The method was later used extensively in modified form in the coal industry, and helped in establishing the presence of coal layers. Systematic studies of this method were initiated in 1948 by the MNI chair of industrial geophysics. Laboratory tests established that induced polarization of rocks may, under specific conditions, reach considerable dimensions. The studies revealed another alternative on the nature of induced polarization of porous rocks. The principal cause of the emulsion of potentials induced by polarization in porous rocks, when saturated with an electrolyte solution, is the deformation of the dual electrical layer present on the surface of rock grain in the polarized electrical field.

Conclusions:

1. Induced polarization assists in making a fractional breakdown of well cuts and classifies reservoirs of the lowest, medium and highest permeability; it also distinguishes clays of greater and lesser degrees of sandy content.
2. Induced polarization allows an appraisal of the degree of permeability of sandy reservoirs in situations, placing it thereby among the most interesting methods of geophysical studies of oil and gas wells.

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

5(4) SOV/20-126-5-31/69

AUTHORS: Zhigach, K. F., Finkel'shteyn, M. Z., Timokhin, I. M.

TITLE: The Structural Viscosity of Aqueous Solutions of Carboxymethyl Cellulose (Strukturnaya vyazkost' vodnykh rastvorov karboksimetiltsellyulozy)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 5, pp 1025-1028 (USSR)

ABSTRACT: A previous paper (Ref 1) pointed out that carboxymethyl cellulose (CMC) exhibits anomalous viscosity at concentrations exceeding 0.1% in aqueous solutions. Now the effect of the individual fractions of CMC with varying degree of polymerization are investigated with respect to the structure of the solution. Four samples were selected: (1) high-molecular, (2) gel-shaped, (3) sol-shaped, and (4) low-molecular CMC (Table 1). The viscosities measured at different velocity gradient G (viscosimeter by Pinkevich) confirm F. Höppler's opinion (Refs 2,3), i.e., the viscosity of high-molecular CMC depends on G, and this dependence increases with increasing concentration. Sample 2 shows the highest degree of anomaly, whereas sample 4 exhibits the least dependence on G (Table 2). Accord-

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ing to Pasynskiy and Rabinovich (Ref 4) this structural viscosity can be represented by the tangent of the angle of inclination α in the coordinate system η - lgG. Table 3 gives the values for tgα, and besides the calculated dynamical shearing stress Θ. It is concluded that the structural viscosity is caused by the gel fraction and the interaction of the gel particles. The attempt was made to eliminate the interaction of gel particles by the addition of sample 3 or 4 and by adsorption of the low-molecular particles to the gel particles. This was a success as figures 2,3,4 and table 5 show. Only at high concentrations of sample 4 viscosity increases again, which is explained by complete saturation of the gel particles. Thus, the increased concentration of the CMC becomes effective. The results obtained show that by a proper arrangement of CMC fractions it is possible to control the properties in the desired way. There are 4 figures, 5 tables, and 7 references, 4 of which are Soviet.

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promyshlennosti im. I. M. Gubkina (Institute of Petroleum-chemical and Gas Industry imeni I. M. Gubkin)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

11(2,4) PHASE I BOOK EXPLOITATION SOV/2536

Moscow. Institut neftekhimicheskoy i gazovoy promyshlennosti.

Problemy nefti i gaza (Oil and Gas Problems) Moscow, Gostoptekhizdat, 1959. 362 p. (Series: Its: Trudy, vyp 24) Errata slip inserted. 2,000 copies printed.

Sponsoring Agency: Ministerstvo vysshego obrazovaniya SSSR.

Resp. Ed.: G. F. Morgunova; Tech. Ed.: I. G. Fedotova; Editorial Board: K. F. Zhigach, Professor (Resp. Ed.), I. M. Muravyev, Professor, A. A. Tikhomirov, Candidate of Economic Sciences, V. K. Vinogradov, Candidate of Technical Sciences, M. M. Charygin, Professor, F. F. Dunayev, Professor, I. A. Charnyy, Professor, V. N. Dakhnov, Professor, G. N. Panchenkov, Professor.

PURPOSE: This collection of articles is intended for specialists in the petroleum and gas industry. It will also be of interest to scientific research institutes, teachers and students of vuzes.

COVERAGE: This collection of articles reviews problems connected with natural and synthetic gas production. A number of articles are devoted to the study of regional oil- and gas-bearing zones, the crystalline beds underlying the Volga-Urals petroliferous region, tectonics of the Caspian depression, seismic prospecting, oil well logging, development of oil and gas fields, petroleum-bearing formations and their physicochemical characteristics, and petroleum engineering. Other articles deal with gas turbine engines and their possible use in the oil and gas industry, the production of carboxymethylcellulose compounds, the application of ionic exchange tars to the organic catalysis, continuous coking of heavy petroleum residues, (fluidization), the improvement of lube oil production, and the influence of acid esters on properties of lubricating oil and grease. The book contains a number of photographs, tables, flow sheets, and diagrams, among which those relating to coal gasification and conversion of heavy petroleum residues over a fluidized bed catalyst deserve special attention. References accompany individual articles.

Rizhnetsov, R. N. Gas Turbine Engines and Prospects of Utilizing Them in Petroleum and Gas Industry 246

Zhigach, K. F., M. I. Fiabel'shteyn, I. N. Timokhin, and Ye. N. Bogilevskiy. Study of Physicochemical Properties of Fractions and Low Polymerization Compounds of Carboxymethylcellulose, and Their Production 257

Tsyshkov, A. V., Ye. M. Pavukhin, I. F. Bayev, N. K. Kurzabov, and O. I. Smolenov. Present State of the Synthesis of Benzene Homologs and Their Chemical Processing 269

Ioselyuniis, V. I. Ionic Exchange Tars and Their Application to Organic Catalysis 286

Gurvich, V. L. (Deceased), A. I. Shukin, Ye. V. Smidovich, N. P. Zaytsevo, N. S. Lazarevskaya, V. K. Petrov, A. S. Putnatov, and A. A. Shcherbakov. The Process of Continuous Coking of Heavy Petroleum Residues Carried Out Over a Powdered Coke 298

Charygin, M. I., I. P. Lukashevich, A. V. Nikolaev, O. G. Shaganin, L. P. Laskova, N. P. Sedchikova, K. A. Shchegolev, L. N. Markova, [illegible], and [illegible]. Solubility of Hydrocarbon Oils in Organic Solvents and Possibilities of Improving Lube Oil Manufacturing 311

Veitkevich, D. S. Synthetic Acid Esters and Their Influence on Properties of Lube Oil and Grease 341

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

CHERNOZHUKOV, N.I., prof., doktor tekhn.nauk, red.; ZHIGACH, K.F., prof., red.; MURAV'YEV, I.M., prof.,red.; TIKHOMIROV, A.A., kand.ekon. nauk, red.; YEGOROV, V.I., kand.ekon.nauk, red.; CHARYGIN, M.M., prof., red.; DUNAYEV, F.F., prof., red.; KUZMAK, Ye.M., prof., red.; CHARNYY, I.A., prof., red.; PANCHENKOV, G.M., prof., red.; DAKHNOV, V.N., prof., red.; NAMETKIN, N.S., doktor khim.nauk, red.; ALMAZOV, N.A., dotsent, red.; VINOGRADOV, V.N., kand.tekhn.nauk, red.; BIRYUKOV, V.I., kand.tekhn.nauk, red.; TAGIYEV, N.I., red.; GUREVICH, V.M., red.; ZAMARAYEVA, K.M., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Petroleum refining; articles] Pererabotka nefti; materialy. Moskva, Gos.nauchno-tekhn.izd-ve neft. i gorno-toplivnoi lit-ry. Vol.2. 1958. 289 p. (MIRA 12:1)

1. Mezhvuzovskoye soveshchaniye po voprosam novoi tekhniki v neftyanoy promyshlennosti, Moscow, 1956. 2. Moskovskiy neftyanoy institut (for Chernozhukov, Panchenkov).
(Petroleum--Refining)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F.; FINKEL'SHTEYN, M.Z.; TIMOKHIN, I.M.; MALININA, A.I.

Carboxymethylcellulose preparations for blood substitute solutions. Dokl.AN SSSR 123 no.3:471-474 N '58. (MIRA 11:12)

1. Moskovskiy neftyanoy institut imeni I.M.Gubkina. Predstavleno akademikom A.V.Topchiyevym.
(CELLULOSE) (BLOOD PLASMA SUBSTITUTES)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F., doktor khim.nauk; ADEL', I.B., kand.tekhn.nauk;
ZAGARNISTR, O.S., inzh.

New viscosity reducers for drilling muds. Trudy VNIIBT no.1: 142-156 '58. (MIRA 11:12)
(Clay) (Viscosity)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F.; FINKEL'SHTEYN, M.Z.; TIMOKHIN, I.M.; MALININA, A.I.

Preparation of carboxylmethylcellulose fractions and investigation of their physicochemical properties. Dokl.AN SSSR 123 no.2:289-291 N '58. (MIRA 11:12)

1. Moskovskiy neftyanoy institut imeni I.M. Gubkina. Predstavleno akademikom A.V. Topchiyevym.
(Cellulose)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F., prof., red.; MURAV'YEV, I.M., prof. doktor tekhn.nauk, red.; TIKHOMIROV, A.A., kand.ekon.nauk, red.; YEGOROV, V.I., kand.ekon. nauk, red.; CHARYGIN, M.M., prof., red.; DUNAYEV, F.F., prof., red.; CHERNOZHUKOV, N.I., prof., red.; KUZMAK, Ye.M., prof., red.; CHARNYY, I.A., prof., red.; PANCHENKOV, G.M., prof., red.; DAKHNOV, V.N., prof. doktor geologo-mineralogicheskikh nauk, red.; NAMETKIN, N.S., doktor khim.nauk, red.; ALMAZOV, N.A., dots., red.; VINOGRADOV, V.N., kand.tekhn.nauk, red.; BIRYUKOV, V.I., kand.tekhn.nauk, red.; TAGIYEV, N.I., red.; GUREVICH, V.M., red.; DOBRYNINA, N.P., vedushchiy red.; MUKHINA, N.A., tekhn.red.

[Proceedings of an interschool conference on problems of new techniques in the petroleum industry] Materialy Mezhvuzovskogo soveshchaniya po voprosam novoy tekhniki v neftyanoy promyshlennosti. Moskva, Gos. nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vo.1. [Prospecting and exploitation of oil and gas fields] Razvedka i razrabotka neftianykh i gazovykh mestorozhdenii. 1958. 311 p. (MIRA 11:4)

1. Mezhvuzovskaya soveshchaniye po voprosam novoy tekhniki v neftyanoy promyshlennosti.
(Petroleum engineering) (Gas, Natural--Geology)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

5(1,3) SOV/20-123-2-22/50

AUTHORS: Zhigach, K. F., Finkel'shteyn, M. Z., Timokhin, I. M., Malinina, A. I.

TITLE: Production of Carboxy-Methyl Cellulose Fractions and Investigation of Its Physical and Chemical Properties (Polucheniye i issledovaniye fiziko-khimicheskikh svoystv fraktsiy karboksimetiltsellyulozy)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 2, pp 289-291 (USSR)

ABSTRACT: This water soluble sodium salt of the cellulose carboxy-methyl ester (CMC) has found widespread use in the last years as a stabilizer, emulsifier, active addition to synthetic detergents, as a glue etc. (Refs 1,2). CMC is a complex polydisperse product consisting of various fractions that differ from each other by their chemical composition (Ref 3) and their physical and chemical properties. CMC can be produced with different values of the esterification and polymerization. Therefore not every CMC type is suited for the purpose. Only single types can be practically used in the one or other branch of industry: this must be determined in every single case. The connection

Card 1/4

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SOV/20-123-2-22/50

Production of Carboxy-Methyl Cellulose Fractions and Investigation of Its Physical and Chemical Properties

between the chemical composition of the CMC samples and their properties and behaviour has remained unexplained until now. These samples almost ever contain a certain amount of small fibers that are difficult to solve and are capable of swelling, the so-called gel-like phase, the content of which can influence in a high degree the properties (especially the rheological properties, Ref 4) of CMC solutions. For these reasons the authors wanted to close this gap. Four samples of CMC were chosen as objects: a) That used for stabilizing loam solutions in drilling (Refs 2,5), b) That serving for the stabilization of silicate salt solutions when drilling into water-endangered and easily sliding soft rocks (Ref 2), and as a glue (Ref 6). c) German samples of the type VHR, d) A special CMC preparation of low viscosity. Besides its fractionation by means of methanol or acetone samples a - c are separated into the gel- and sol-like phases by centrifuging. I The viscosity, II the stabilizing effect were determined of the fractions obtained. The viscosity of the aqueous solutions of CMC above 0.1% does not obey the Newton law. In the 0.05% solutions investigated

Card 2/4

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SOV/20-123-2-22/50

Production of Carboxy-Methyl Cellulose Fractions and Investigation of Its Physical and Chemical Properties

the viscosity anomaly was almost completely lacking. The stabilizing effect of the CMC fractions was determined by the filtration analysis with a pressure drop of 1 atmosphere absolute pressure. Table 1 gives the results. As may be seen, the fractionation tends to show a heterogeneity of the CMC with respect to the degree of polymerization and esterification. The properties of the fractions change according to rules with the order of the isolation of the latter: lower polymerized fractions are esterified in a higher degree. The fractions produced by precipitation are not of equal value with respect to their stabilizing properties. It was also shown that the gel-like phase has only a weak stabilization and effect. Besides the degree of polymerization and esterification this must be taken into account. The ratio of the gel- and sol-like phase is not only important when used as a stabilizer of loam solutions. The gel-like phase is the most effective when using it as a glue. There are 1 table and 7 references, 4 of which are Soviet.

Card 3/4

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SOV/20-123-2-22/50

Production of Carboxy-Methyl Cellulose Fractions and Investigation of Its Physical and Chemical Properties

ASSOCIATION: Moskovskiy neftyanoy institut im. I. M. Gubkina (Moscow Petroleum Institute imeni I. M. Gubkin)

PRESENTED: July 3, 1958, by A. V. Topchiyev, Academician

SUBMITTED: July 1, 1958

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

5(3),17(3)

AUTHORS: Zhigach, K. F., Finkel'shteyn, M. Z., ~~Timokhin, I. M.,~~ Malinina, A. I.

SOV/20-123-3-25/54

TITLE: Carboxy-Methyl Cellulose Preparations for Blood-Substituting Solutions (Polucheniye preparatov karboksimetiltsellyulozy dlya krovezameshchayushchikh rastvorov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 3, pp 471-474 (USSR)

ABSTRACT: The sodium salt of the compound under review (Na-CMC) does not considerably change the blood composition if used as a plasma substitute in animals (Ref 1), even not in considerable excess. Na-CMC, however, was negatively characterized since it causes hypertension on intravenous injection. It was useful to try the synthesis of such preparations which also would yield good results with regard to their hemodynamic properties.
CMC preparations can be produced with different polymerization degree (PD) and esterification degree (ED). This work was initiated by the institute mentioned in the "Association" together with Tsentral'nyy institut gematologii i perelivaniya krovi - TsOLIPK (Central Institute of Hematology and Blood Transfusion) in 1953.

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

CMC preparations with different PD- and ED-values were obtained by esterification of pulverized alkali cellulose with sodium monochlorine acetate. The quantity of the esterifying agent depends on the PD of the original alkali cellulose. Table 1 shows that, at the same ratio of the reagents, with a lesser PD of alkali cellulose higher EDs are attained. The desired ED can be obtained by a limitation of the sodium monochlorine acetate consumption, as this reduces the PD of the initial cellulose. For the synthesis of blood-substituting solutions only chemically pure CMC preparations can be used. An instruction for the purification is given. In order to obtain a complete solubility the ED of CMC must be high; values of 70-85 do not influence the blood-substituting properties of CMC (Ref 5). From among the CMC preparations tested (PD of 240 up to 58) those with values between 70 and 100 were the most efficient ones (3% aqueous solutions with a viscosity 3.5 - 5.0 centipoises; contrary to Ref 6). The desired preparations with a low PD can be obtained by a) destruction of the initial cellulose and alkaline cellulose, respectively, or b) by additional splitting of finished CMC preparations. Only the mode b) can be recommended.

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

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Carboxy-Methyl Cellulose Preparations for Blood-Substituting Solutions

In order to accelerate the destruction process of the alkali cellulose that requires a lot of time, by atmospheric oxygen (Table 2), hydrogen peroxide is added to the mercerization bath or to the alkali cellulose during the pulverization. The results of the experiments are given in table 3. Small quantities H_2O_2 (up to 1.5%) do not influence the blood-substituting properties of CMC. Large amounts, if added directly to alkali cellulose, turn CMC preparations toxic, and animals are killed if they are intravenously injected. The increase in the toxic effect cannot be explained by a modification of the average chemical composition. Most probably it is a consequence of the unequal destruction process as well as of the agglomeration of a certain quantity of highly oxidized cellulose by which CMC preparations become toxic. For this reason, H_2O_2 must be used very carefully for the above-mentioned purpose. For the purpose of reducing of the PD below 100 the finished product was hydrolytically cleft with aqueous HCl solution at 65-70°. The duration of this process depends on the initial PD of CMC preparations. Good

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SOV/20-123-3-25/54

Carboxy-Methyl Cellulose Preparations for Blood-Substituting Solutions

results were yielded with CMC preparations of a relatively low molecular weight (PD about 130). The investigations performed suggest new ways of synthesizing Na-CMC preparations with blood-substituting properties. There are 5 tables and 9 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy neftyanoy institut im. I. M. Gubkina (Moscow Petroleum Institute imeni I. M. Gubkin)

PRESENTED: July 3, 1958, by A. V. Topchiyev, Academician

SUBMITTED: July 1, 1958

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACH, K.F.; YAROV, A.N.

Determining the swelling of clays. Izv. vys. ucheb. zav.; neft' i gaz 2 no.10:13-16 '59. (MIRA 13:2)

1.Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. I.M. Gubkina. (Clay)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

LOPATIN, V.A.; MUKHIN, L.K.; ZHIGACH, K.F.

Influence of circulating fluids on the stability of swelling clay. Izv.vys.ucheb.zav.; neft' i gaz 6 no.11:29-34 '63. (MIRA 17:9)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akad.I.M.Gubkina.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

GORODNOV, V.D.; ADEL', I.B.; ZHIGACH, K.F.; MOROZOVA, Ye.V.

Effect of external pressure on the swelling of clay rocks in solutions of chemical reagents. Neft.khoz. 42 no.4:14-18 Ap '64. (MIRA 17:9)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

CHUMAKOV, Yu.I.; Prinimali uchastiye: ZHIGACH, T.K.; NEKHAYEVA, N.G.; CHVYREVA, Ye.G.; ISKOVSKIKH, N.G.

Pyridinecarboxylic acids. Metod.poluch.khim.reak. i prepar. no.7:74-79 '63. (MIRA 17:4)

1. Kiyevskiy politekhnicheskiy institut.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACHEV, Anatoliy Vasil'yevich

Vice Chmn., Tadzhik Affil., Acad. Sci., -1948-.

"In Memory of Yelena Aleksandrovna Raznitsyna," Pochvoved., No. 6, 1949.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACHEV, B.E.

Zhivaia blokirovka. [Manual block system]. Moskva, Gos. transp. zhel-dor. izd-vo, 1945. 16 p. diagrs.

DLC: TF625.Z5

SO: SOVIET TRANSPORTATION AND COMMUNICATION, A BIBLIOGRAPHY, Library of Congress Reference Department, Washington, 1952, Unclassified.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACHEV, B.Ye., inzhener

Using small combustion engine locomotives for marshalling yard operations. Tekh.zhel.dor.7 no.7:28-29 Jl'48. (MIRA 8:11)
(Railroads--Switching)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACHEV, I.I., insh.

Mutual automatic supply of reserve by low-voltage power sources. Elektrichestvo no.12:71-76 D '58. (MIRA 11:12)
(Electric power distribution)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

8(2) SOV/105-58-12-17/28

AUTHOR: Zhigachev, I. I., Engineer

TITLE: Automatic Mutual Reservation of Feeding Sources at Low Voltage (Avtomaticheskoye vzaimnoye rezervirovaniye istochnikov pitaniya na nizkom napryazhenii)

PERIODICAL: Elektrichestvo, 1958, Nr 12, pp 71 - 76 (USSR)

ABSTRACT: In the present paper a few circuit diagrams with an appliance for automatic mutual reservation (AMR) are described. Apart from the closed diagrams these diagrams can be used with any structure of the electrical supply lines with separately working sources of different efficiency. The appliances for AMR are built by the aid of simple large-scale produced automation apparatus of the same type for alternating current and can be used both in the supply systems to be planned and in those already existing. In all the diagrams described in the present paper, the control circuits do not go beyond the boundaries of the switchboard. In the case of complicated supply systems, the structure of which is similar to a closed one, the diagrams described can be used in various combinations. In conclusion it is pointed out that in many cases it is useful

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Automatic Mutual Reservation of Feeding Sources at Low Voltage SOV/105-58-12-17/28

not to apply a complicated circuit diagram, but rather that of the automation of these diagrams, in order to secure an uninterrupted power supply. There are 8 figures and 4 Soviet references.

SUBMITTED: November 1, 1956

Card 2/2

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L 24711-66 EWT(m)/ETC(f)/EPF(n)-2/EWG(m) WW

ACC NR: AT6008414 SOURCE CODE: UR/3136/65/000/992/0001/0025

AUTHOR: Goncharov, V. V.; Chernilin, Yu. F.; Shavrov, P. I.; Chernyshevich, V. N.; Yegorenkov, P. M.; Zhigachev, V. M.; Larin, I. I.; Kornoyev, V. T.; Yashin, A. I.

ORG: none

TITLE: Remodeling the IRT reactor at the Institute of Atomic Energy imeni I. V. Kurchatov

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-992, 1965. Rekonstruktsiya reaktora IRT v IAE im. I. V. Kurchatova, 1-25

TOPIC TAGS: nuclear reactor, reactor fuel element, nuclear reactor core

ABSTRACT: The authors describe steps taken to redesign the IRT reactor at the Institute of Atomic Energy. The following units and systems were altered to increase the power of the reactor, expand its range of experimental possibilities, and improve its operational qualities: 1. fuel elements and reactor core design; 2. cooling system; 3. experimental units; 4. control and shielding system; 5. radiation-monitoring system; 6. special ventilation. Figures are given showing the

Card 1/2

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ACC NR: AT6008414

longitudinal and transverse cross sections of the reactor as well as detailed diagrams of the reactor core and the channel for the "cold" neutron source. The new fuel assemblies have nearly twice as much heat-transfer area as the rod elements formerly used. Each assembly contains 155 grams of 36% enriched U-235. Metallic beryllium is used as the reflector. The core contains 54 cells in all and has a 50 mm lead shield for stopping γ-radiation. The experimental units include horizontal and vertical channels as well as a "cold" neutron source and a thermal neutron "trap". The modifications made in the reactor give a maximum thermal neutron flux (U-235) in the core of $5 \cdot 10^{13}$ neutrons/cm^2 sec, a maximum fast neutron intensity (E>0.5 Mev) of $9 \cdot 10^{13}$ neutrons/cm^2 sec, and a power of 4000-5000 kw. The procedure used for disassembly and reassembly operations in the reactor pool is described. Some of the physical and technical characteristics of the modified IRT-M reactor are tabulated. Orig. art. has: 10 figures, 3 tables.

SUB CODE: 18/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 006

Card 2/2

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

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L 39777-66 EWT(m)/EWP(f) (D)-2

ACC NR: AT6012692 SOURCE CODE: UR/3136/65/000/991/0001/0044

AUTHOR: Goncharov, V. V.; Babulevich, Ye. N.; Shavrov, P. I.; Ryazantsev, Ye. P.; Novikov, I. M.; Yegorenkov, P. M.; Cherviatsov, A. A.; Frolov, I. P.; Zhigachev, V. M.; Pushnin, B. T.; Fishevskiy, V. K.; Zakharov, L. K.; Kruglov, A. B.; Karasev, N. A.; Goncharov, L. A.

ORG: State Committee on the Use of Atomic Energy SSSR, Institute of Atomic Energy im. I. V. Kurchatov, Moscow (Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR, Institut atomnoy energii)

TITLE: Experience in operation of the MR reactor and tests of fuel elements and materials

SOURCE: Moscow. Institut atomnoy energii. Doklady, no. 991, 1965. Opyt ekspluatatsii reaktora MR i provedeniye ispytaniy TVEL i materialov, 1-44

TOPIC TAGS: nuclear research reactor, reactor fuel element, nuclear reactor material, nuclear reactor characteristic

ABSTRACT: The authors discuss the loop research reactor MR constructed at the Kurchatov Institute of Atomic Energy and intended for the test of fuel elements and materials in new atomic installations. It is described in paper P/323 of the Third Geneva Conference in 1964. The present article describes in detail its con-

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L 39777-65

ACC NR: AT6012692

struction and the various test loops in it. The section headings are: I - Introduction. II. Operation of reactor. 1. Certain physical characteristics of the reactor. a) Fuel burnup. b) Efficiency of control valves, scram rods, and movable fuel assemblies. c) Fluxes of thermal and fast neutrons. 2. Control and protection system of the reactor. 3. Technological systems of the reactor. a) Cooling loop for fuel element assembly. b) Cooling loop for the reactor assembly blocks. c) Intermediate (second) cooling loop of reactor. d) Third cooling loop of reactor. e) Water purification system. 4. Fuel assembly operating conditions and conditions for the graphite stacking blocks. 5. Reloading operations. III. Operation of loop installations. Organization and performance of tests on fuel elements and materials. IV. Dosimetric control. Radiation shielding of reactor. The reactor has been in operation since 24 July 1964, and its power has been gradually increased from the initial 20 MW to 30 MW. The usual operation is at 25 MW. The reactor has 3 loop channels with 7 associated experimental channels. Various characteristics of the reactor at different power ratings are tabulated. Major contributions to the adjustment of the MR reactor were made by A. Ye. Alekseyev, B. A. Alekseyev, S. N. Begichev, A. B. Bugayenko, Yu. I. Kovalev, V. K. Lebedev, A. M. Rotankov, V. D. Rusov, N. V. Sarychev, Ye. S. Chernorotov, and Yu. A. Shikov. Orig. art. has: 13 figures and 6 tables.

SUB CODE: SUBM DATE: 00/ ORIG REF: 001

Card 2/2

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGACHEVA, A.M.

New linen fabrics and manufactured articles. Tekst. prom. 25 no.10:10-11 O '65. (MIRA 18:10)

1. Nachal'nik otdela l'nyanoy promyshlennosti Vsesoyuznogo instituta assortimenta izdeliy legkoy promyshlennosti i Kul'tury odezhdy.

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

83688

S/032/60/026/009/002/018
B015/B058

11.3000

AUTHORS: Datskevich, A. A., Zhigacheva, L. P., Krasnova, G. V., Lapitskaya, M. D., Latukhova, A. G., Moshinskaya, M. B.

TITLE: Determination of Small Amounts of Hydrogen in Helium

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 9, pp. 1082 - 1083

TEXT: A method of determining hydrogen in helium according to the adsorption development chromatography was elaborated. The experiments were made on a XT-2M (KhT-2M) chromatographic instrument with a developer based on the thermochemical principle (Ref. 1). The working conditions were selected in such a way that a detector could determine both components by two characteristics, i.e., helium by the thermal conductivity and hydrogen by the heat of combustion. A 6 m long metallic separation column, filled with CKT (SKT) coal and with air as carrier gas, was used for analyses at room temperature. The sensitivity to hydrogen amounted to 0.5% at a relative accuracy of 5%. A 10 m long polyvinyl chloride tube was used for analyses at low temperatures and work was carried out

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83688

Determination of Small Amounts of Hydrogen in Helium

S/032/60/026/009/002/018
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at - 35°C, making it possible to obtain a better separation and to use larger sample quantities, so that the sensitivity rose to 0.05%. A comparison of the measuring results on the KhT-2M instrument with those obtained at a combustion over copper oxide is tabulated. There are 2 figures, 1 table, and 1 Soviet reference.

ASSOCIATION: Konstruktorskoye byuro avtomatiki i telemekhaniki (Design Office for Automation and Telemechanics). Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut (All-Union Petroleum Scientific Research Institute of Geological Survey). Moskovskiy zavod szhizhoniya prirodnogo gaza (Moscow Plant for Liquefying Natural Gas)

Card 2/2

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

BORISOV, V.I.; LEVIT, Z.Yu., inzh.; KALININ, V.Z., inzh.; BROVKIN, M.G., inzh.; AGAL'TSOV, N.V., inzh.; ZHIGACHEVA, T.F., inzh.; LOBANOV, V.S., inzh.; ALIMOV, M.F., inzh.; VIKSMAN, I.M., inzh.; LAZAREV, V.Ya., inzh.; ZALEVSKAYA, L.V., tekhnik; SHCHETVINA, R.F., tekhnik; SOKOLOVSKIY, I.A., red.; SHALAGINOV, A.A., vedushchiy red.

[Special and basic equipment of mechanical assembly shops in instrument plants] Nestandartnoe oborudovanie i orgosnastka mekhanicheskikh sborochnykh tsekhov priborostroitel'nykh zavodov. Moskva, Otdel nauchno-tekhn. informatsii, 1959. 158 p. (MIRA 15:4)

(Instrument industry—Equipment and supplies)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGALEV, N.V., inzhener; MAKSIMOVA, L.T.

Device for wood inlay work. Der.i lesokhim.prom.3 no.1:24-25 Ja '54. (MLRA 7:2)

1. Rizhskiy mebel'nyy kombinat No.1. (Marquetry)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGALEV, P.I., veterinarnyy vrach.

Avens therapy of babesiasis. Veterinariia 30 no.6:33-34 Je '53. (MLRA 6:5)

1. Vurnarskiy zoovetekhnikum, Chuvashskoy ASSR.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

KORTSENSHTEYN, Vol'f Nukhimovich, doktor geol.-miner. nauk; Prinimali uchastiye: SPEVAK, Yu.A.; ZHIGALIN, R.I.; MUKHIN, Yu.V., kand. geol.-miner. nauk, nauchnyy red.; BOGACHEVA, N.G., ved. red.; STAROSTINA, L.D., tekhn. red.

[Methods for hydrogeological studies of oil- and gas-bearing regions] Metodika gidrogeologicheskikh issledovanii neftegazonosnykh raionov. Moskva, Gostoptekhizdat, 1963. 167 p. (MIRA 16:5)

(Oil field brines)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

S/138/63/000/001/001/008
A051/A126

AUTHORS: Bashkatov, T. V., Zhigalin, P. L., Rumyantseva, A. N.

TITLE: On the development of the Soviet synthetic rubber industry

PERIODICAL: Kauchuk i rezina, no. 1, 1963, 1 - 3

TEXT: The year 1962 marked the 30th anniversary of the Soviet synthetic rubber industry. According to the Seven-Year Plan 1959 - 65, production should increase by a factor of 3.4 as compared to 1958. New improved polymerization composition of SR at three plants, employing a new oxidation-reduction system and using modified colophony as emulsifier, the introduction of new emulsifiers, coagulating agents and regulators at all the other SR plants, perfecting the production technology are named as means to raise the quality. The production of СКС (SKS) and СКМС (SKMS) non-oil-filled and highly oil-filled rubbers is planned on recommendation of the Scientific Research Institutes ВНИИСК (VNIISK) НИИШП (NIIShP). Stereo-regulated butadiene and isoprene rubbers are meant to replace natural rubber. СКД (SKD) rubber is to be produced by the Efremov, Yaroslavl, Voronezh, and Kazan' SR plantsusing butadiene obtained from alcohol. Other, older

Card 1/3

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S/138/63/000/001/001/008
A051/A126

On the development of the Soviet synthetic rubber...

SR plants intend using butadiene produced from butane; for example, the Novokuybyshev petroleum-chemical plant. The Seven-Year Plan further includes the production of high-quality regular-structure isoprene rubber СКИ -3 (SKI-3) in three newly constructed SR plants. Production of special rubbers, such as: butyl, chloroprene, nitrile, silicon, polyisobutylene, butadienemethylvinylpyridine, butylacrylate, and polyetherurethane rubbers is intended. Synthetic latexes are being extensively introduced to various industries. Natural gas, residual gases of the petroleum industry, petroleumstabilising by-products, and some hydrocarbon fractions of oil refining will be used in the future as the initial raw material in the SR industry. By 1965, butadiene produced by butane dehydration will increase to 44% of the total quantity; alcohol-produced butadiene will drop to 56%. Isoprene will be produced by catalytic dehydration of isopentane, isobutylene by isobutane dehydration. Styrene and methylstyrene will be produced by dehydration of ethylbenzene and isopropylbenzene. To take up again the production of disproportionated colophony, dodecylmercaptane, dimethyldithiocarbamate, diisopropylbenzene, hydrogenperoxide, trilon B, rongalit, purified fatty acids, zinc stearate, etc., is regarded one of the major future tasks of the SR industry. Another problem is the expansion and development of scientific research and experimentation. In this

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

On the development of the Soviet synthetic rubber... S/138/63/000/001/001/008
A051/A126

connection, the All-Union SR Institute im. S. V. Lebedev ВНИИСК (VNIISK) has been expanded, in addition to the Scientific Research Institute of Monomers for SR, НИИМСК (NIIMSK). The Hypro-rubber Institute for designing SR plants has gained in significance. Emphasis is placed on increasing the volume of experimental data and the number of new types of machinery and equipment.

ASSOCIATION: Gosudarstvenniy komitet po khimii pri Gosplane SSSR (State Committee on Chemistry at the Gosplan USSR)

Card 3/3

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGADLO, A.V.

S

19

The Detection of Defects in Steel Parts by the Magnetic Powder Method. A. V. Zhigadlo. (Zavodskaya Laboratoriya, 1939, No. 4-5, pp. 436-448). (In Russian). Observations made in tests on aircraft parts by the magnetic powder method are dealt with. The object of the investigation was to determine the sensitivity of the method in detecting defects of various shapes and size, both on and below the surface. The methods employing residual circular magnetisation (induced by passing an instantaneous direct or alternating current through the parts) and an external field (produced by either direct or alternating current passed through the parts or by an electromagnet) were studied from the above point of view using parts with natural and artificial defects. In the former case, the defects detected were marked and the parts were then sectioned and examined microscopically. A considerable amount of data concerning the sensitivity of the different methods is given in tabular form. In the method in which an external electromagnet was used it was observed that the results may be masked by magnetic effects due to the configuration of the parts being tested.

A38-56A METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGADLO, A. V.

USSR/Engineering Aug 48
Inspection
Magnetic Materials

PA 3/49T39

"Colored Magnetic Powders for the Inspection of Indistinct Detail by the Suspension Method," A. V. Zhigadlo, All-Union Inst of Aviation Materials, 7 pp

"Zavod Lab" Vol XIV, No 8 - pp. 942-48

Describes brightly colored magnetic powders for detection of flaws in intermediate and finished parts. Pigment is retained on magnetic particles by means of oil-resisting gums or resins, so powders can be applied as suspensions, which is

3/49T39

USSR/Engineering (Contd) Aug 48

more effective than dry dusting. Appended tables and graphs show results of tests.-

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APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGADLO, A. V. Cand. Tech. Sci.

Dissertation: "Magnetic Particle Method and its Application for the Inspection of Aircraft Parts."

25 Jun. 49

Scientific Council, All-Union Inst. of Aviation Materials.

SO Vecheryaya Moskva
Sum 71

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGADLO, A.V.

25(6) PHASE I BOOK EXPLOITATION SOV/2555

Nauchno-tekhnicheskoye obshchestvo priborostroitel'noy promyshlennosti. Ukrainskoye respublikanskoye pravleniye

Novyye metody kontrolya i defektoskopii v mashinostroyenii i priborostroyenii [doklady Respublikanskoy konferentsii] (New Methods of Inspection and Flaw Detection in the Machinery and Instrument-manufacturing Industries [Reports of the Conference Held at Kiyev, 1956]) Kiyev, Gosteknizdat USSR, 1958. 264 p. 4,700 copies printed.

Sponsoring Agency: Akademiya nauk USSR.

Ed.: A. Amelin; Tech. Ed.: P. Patsalyuk; Editorial Board: I.I. Greben', B.D. Grozin, A.Z. Zhmudskiy, G.N. Savin (Resp. Ed.), I.D. Faynerman (Dep. Resp. Ed.), and A.A. Shishlovskiy.

PURPOSE: This book is intended for engineers, scientific workers, and technicians dealing with problems of inspection and flaw detection.

COVERAGE: This is a collection of scientific papers presented at a conference sponsored by the Academy of Sciences, UkrSSR, and the Nauchno-tekhnicheskoye obshchestvo priborostroitel'noy promyshlennosti, Ukrainskoye pravleniye (Ukrainian Branch, Scientific and Technical Society of the Instrument-manufacturing Industry). The papers deal with modern methods of inspection and flaw detection used in the machinery- and instrument-manufacturing industries. The subjects discussed include the use of electron microscopes in the investigation of metal surfaces; X-ray, gamma-ray, luminescense, magnetic, and ultrasonic methods of flaw detection; use of radioactive isotopes; X-ray diffraction methods of metal analysis; and the use of interferometers for measuring length and thickness and determining the coefficient of linear thermal expansion. No personalities are mentioned. References follow several of the papers.

Genkin, V.M., Engineer, Gor'kiy "Krasnoye Sormovo" Plant. X-ray Diffraction Quantitative Phase Analysis Using Standard X-ray Photographs 70

Zhmudskiy, A.Z., and L.N. Pakchanin, Candidate of Physical and Mathematical Sciences, Kiyev State University imeni Shevchenko. Problems of Physical Strength and Crack Formation in Case-hardened Parts 75

Yevgrafov, A.V., Engineer, and P.N. Yelchin, Moscow TsNIITMASh. Methods and Equipment for Luminescent Flaw Detection 78

Yakovlev, S.N., Engineer, Avtozavod, g. Gor'kiy (Gor'kiy Automobile Plant). Experience Gained at the Laboratory for Spectral Analysis, Gor'kiy Automobile Plant 85

Yeremin, N.I., Candidate of Physical and Mathematical Sciences, TsNIITMASh. New Developments in the Field of Magnetic-particle Flaw Detection and Magnetic Metallography 87

Zhigadlo, A.V., Candidate of Technical Sciences, Institut, p/ya 126, Moskva (Institute, Post Office Box 126, Moscow). Improved Methods and Equipment for Magnetic Inspection of Ferromagnetic Parts 106

Landa, V.A., Engineer, Moscow VNIIT. Instruments for a Magnetic Quality Control Method of the Heat Treatment of Tools Made From High-speed Steels 114

Entin, S.D., Candidate of Technical Sciences, Moscow TsNIITMASh. Application of a Magnetic Method for Investigating Heat-resistant Austenitic Alloys 121

Khizhnenko, N.N., Candidate of Technical Sciences, and V.P. Prikhod'ko, Engineer, Kiyev Electric Welding Institute imeni Ye.O. Paton. Ultrasonic Structural Analysis of Metals 126

Gubanova, M.R., Candidate of Technical Sciences, and I.N. Yermolov, Moscow TsNIITMASh. Ultrasonic Flaw Detection in Metals 134

Gurevich, A.K., Engineer, Leningrad NII of Bridges. Ultrasonic

Card 5/9

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGADLO, A.V.

25(6) P.2 PHASE I BOOK EXPLOITATION SOV/3075

Defektoskopiya metallov; sbornik statey (Flaw Detection in Metals; Collection of Articles) Moscow, Oborongiz, 1959. 458 p. Errata slip inserted. 4,550 copies printed.

Ed.: D.S. Shrayber, Candidate of Technical Sciences; Ed.: M.S. Lagovskaya; Tech. Ed.: V.P. Rozhin; Managing Ed.: A.S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for engineers and technicians in the field of nondestructive inspection and testing of metals.

COVERAGE: This collection of articles deals with methods of nondestructive inspection and testing of metals. Results of investigations conducted at scientific research institutes and plants of magnetic, electrical, X-ray, ultrasonic, and fluorescent-penetrant methods of flaw detection are described. Detailed descriptions of flaw-detection methods and equipment are presented. Data are given on the status of the development of flaw-detection methods in non-Soviet countries. No personalities are mentioned. References follow several of the articles.

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TABLE OF CONTENTS:

Introduction 3

Zilova, T.K., N.I. Demina, and Ya.B. Fridman. Some Regularities Observed in the Effect of Local Defects on the Strength and Plasticity of Parts 7

Zhigadlo, A.V. Perfecting the Magnetic-particle Method of Inspecting Ferromagnetic Parts 34

Kulik, A.A. Magnetization of Parts by Alternating Current and Inspection by the Magnetic-particle Method 47

Ryvkina, D.G. Measuring Magnetic Fields on Parts of Intricate Shape and Inspection of Blades by the Magnetic-particle Method 55

Mikhnevich, P.G. Equipment for Inspecting Parts by the Magnetic-particle Method 62

Semenov, N.M. Automatic Flaw Detector for Inspecting Mass-produced Steel Parts 76

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

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L 24509-66 EWT(d)/EWP(e)/EWT(m)/EWP(w)/EWP(e)/EWP(v)/T/EWP(t)/EWP(k)/EWP(1)/
ACC NR: AP6007705 ETC(m)-6 IJP(c) SOURCE CODE: UR/0413/66/000/003/0084/0084
JD

AUTHOR: Zhigadlo, A. V.; Kifer, I. I.; Semenovskaya, I. B.

ORG: none

14 18 18 B

TITLE: Water-base magnetic paste for detection of powder metal flaws in parts. Class 42, No. 178557

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 84

TOPIC TAGS: flaw detection, powder metal, magnetic paste, paste

ABSTRACT: An Author Certificate has been issued describing a water-base magnetic paste for detection of powder metal flaws in parts; the paste contains a ferromagnetic powder, alkals and wetting agents. In order to make the paste more sensitive to flaw detection, its composition is as follows: ferromagnetic powder, 50%; potassium bichromate, 9%; soda ash (or any other commercial-grade soda), 16%; glycerin, 26%, wetting agent, 9%. [LD]

SUB CODE: 11/ SUBM DATE: 08Aug64/

2

Card 1/1 BLG UDC: 620.179.14

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

L 22740-66 EWP(j)/EWT(m)/T RM

ACC NR: AP6006359 (A) SOURCE CODE: UR/0413/66/000/002/0094/0094

AUTHOR: Rubtsova, I. K.; Kirilovich, V. I.; Andrianova, N. V.; Klapovskaya, O. A.; Zhigadlo, G. I.

ORG: none

37
B

TITLE: Stabilization of polyethylene terephthalate. No. 178103 [announced by the Scientific Research Institute of Plastics (Nauchno-issledovatel'skiy institut plasticheskikh mass)]

SOURCE: Izobreteniya, promyshlennyye obraztsy; tovarnyye znaki, no. 2, 1966, 94

TOPIC TAGS: polyethylene terephthalate, polymer, chemical stability

ABSTRACT: The Author Certificate describes a method for stabilizing polyethylene terephthalate with polyphosphites. To increase the number of types of phorphorus containing polymer stabilizers, a middle polyphosphite, such as polydiphenylolpropanophosphite, is proposed for use as a decyanoethylated diamine.

[LD]

UDC: 678.674'524'420
678.021.122

SUB CODE: 11, 07/ SUBM DATE: 30Jul64

Card 1/1

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

KOKINA, N.N.; ZHUKOVSKIY, P.F.

Bioelectrical phenomena in myxomycete plasmodia. Biofizika 6 no.6:762-765 N-D '61. (MIRA 28:8)

1. Kafedra fiziologii zhivotnykh Moskovskogo universiteta.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGAL', P., polkovnik, voyennyy letchik 1-go klassa

We are ready to carry out any order of the motherland. Komm. Vooruzh.Sil 2 no.19:58-59 O '61. (MIRA 14:9)
(Russia—Air force)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

ZHIGALENKOV, P. (Tul'skaya obl.)

The watch detachment becomes a progressive unit. Pozh.delo 10 no.1: 13 Ja '64. (MIRA 17:2)

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BALASHOV, M.I.; BEKERMAN, F.A.; PEREVEZENTSEV, T.G.; Prinimali uchastiye: SMIRNOVA, L.G., rabotnik; ZHIGALENKOVA, R.S., rabotnik; DUBOVA, L.S., rabotnik

Prevention of waterleaks in iron castings. Lit. proizv. no.1: 40 Ja '65. (MIRA 18:3)

1. TSentral'naya zavodskaya laboratoriya (for Smirnova, Dubova, Zhigalenkova).

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"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064730003-6

BASHKATOV, T.V.; ZHIGALIN, P.L.; RUMYANTSEVA, A.N.

Some problems in the development of the Soviet synthetic rubber industry. Kauch.i rez. 22 no.1:1-3 Ja '63. (MIRA 16:6)

1. Gosudarstvennyy komitet po khimii pri Gosplane SSSR.
(Rubber, Synthetic)

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VERIGIN, N.N., prof.; Priminali Uchastiye: KITSIS, R.A., inzh.; ZHIGALIN, B.I., inzh.; AFINOGENOVA, M.V., inzh.; VINOGRADOVA, G.M., red. izd-va; KASIMOV, D.Ya., tekhn. red.

[Methods of determining the filtration properties of rocks] Metody opredeleniia fil'tratsionnykh svoistv gornykh porod. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1962. 177 p. (MIRA 15:4)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy gidrogeologii. (Rocks—Permeability)

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ZHIGALIN, T.M.

Repair of watertube boilers. Spirt. prom. 23 no.3:38 '57.
(MIRA 10:6)

1. Michurinskiy spirtovoy zavod.
(Boiler, Watertube--Maintenance and repair)

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REEL # 803

ZHELEZNOVA, Ye.F.

to

Zhigalin, T.M.

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